

**TRANSMIT-RECEIVE SWITCHING IN WIRELESS HEARING AIDS****Abstract of the Disclosure**

- Systems, devices and methods are provided to switch between transmit and receive modes in wireless hearing aids. One aspect relates to an apparatus for use within a communication system that has an inductive coil connected to a tuning capacitor at a node. An amplifier is connected to the node through a DC blocking capacitor to receive an induced signal in the inductive coil in a receive mode. A driver energizes the inductive coil with a driven signal in a transmit mode.
- According to various embodiments, the apparatus transforms the inductive coil, the tuning capacitor and the DC blocking capacitor into an equivalent series resonant circuit to reduce an inductive load in the transmit mode, and transforms the inductive coil, the tuning capacitor and the DC blocking capacitor into an equivalent parallel resonant circuit to increase an inductive load in the receive mode.

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